

## REMARKS/ARGUMENTS

### Status of the Claims

Claims 1-19, 31, 33, 35, 44, 48, and 53-118 are pending in the present application. Claims 20-30, 32, 34, 36-41, 45, 46, and 49-52 have been canceled without prejudice to or disclaimer of the subject matter contained therein. Claim 1 has been amended to recite a pentameric peptide covalently linked to a growth factor including at least one of bFGF, GCSF, an ILGF-1, or VEGF. Support for this amendment may be found throughout the specification, for example, in paragraph 0056 on pages 22-23, and in original claims 16 and 18. Claims 2-7 have been amended to correct matters of form. Claims 8, 31, 33, 35, 44, and 48 have been amended to recite the elected SEQ ID NO:34. Support for this amendment may be found throughout the specification and in the claims as originally filed. Claims 10, 13, and 16 have been amended to correct dependency. New claims 53-118 have been added. Support for new claims 53-118 may be found in original claims 1, 3, 4, and 8-15. No new matter has been added by amendment. Reexamination and reconsideration of the claims are respectfully requested.

The Examiner is respectfully requested to withdraw the rejections and allow claims 1-19, 31, 33, 35, 44, 48, and 53-118. Pursuant to 37 C.F.R. §1.116 and the *Manual of Patent Examining Procedure* (MPEP), any amendment that will place the application in condition for allowance may be entered after final rejection (MPEP §714.12). Applicants believe that these amendments place claims 1-19, 31, 33, 35, 44, 48, and 53-118 in condition for allowance.

### Telephone Interview

Applicants thank Examiner Russel for granting their undersigned representative a telephone interview regarding this application on August 26, 2005. Also present at that interview was Dr. Leslie Henry, on behalf of the Applicants. During the telephone interview, Section 28 of the Office action, concerning allowable subject matter was discussed. Applicants thank Examiner Russel for clarifying that pentapeptides of the structures recited in claim 1 covalently attached to at least one of bFGF, GCSF, an ILGF-1, or VEGF are novel and non-obvious.

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Allowable Subject Matter

Applicants thank Examiner Russel for indicating in the Office action that the subject matter in Claim 18 is allowable if rewritten in independent form, including the limitations of the base claim (claim 1) and any intervening claim (claim 16). Applicants have amended base claim 1 to recite the limitations of claims 16 and 18. Consequently, Applicants believe that claim 1 is allowable. Likewise, Applicants believe that dependent claims 2-7, 19, and 53-118 should be allowable, as they contain all the limitations of base claim 1.

Additionally, Applicants thank Examiner Russel for indicating in the Office action that claims 8-18, 31, 33, 35, 44, and 48 are also allowable if limited to the elected SEQ ID NO:34. Applicants have amended claims 8-18, 31, 33, 35, 44, and 48 to recite SEQ ID NO:34. Consequently, Applicants believe that claims 8-18, 31, 33, 35, 44, and 48 are allowable.

The Provisional Rejections for Obviousness-Type Double Patenting Should Be Withdrawn

Claims 30-32, and 41 have been provisionally rejected for obviousness-type double patenting as allegedly being unpatentable over claims 1-53 of copending Application No. 10/259,816. Claims 1, 2, 5-17, 19-21, 33, 36, and 37 have been provisionally rejected for obviousness-type double patenting as allegedly being unpatentable over claims 1-40 of copending Application No. 10/641,286. Claims 1, 2, 5-17, 19-21, 33, 36, and 37 have been provisionally rejected for obviousness-type double patenting as allegedly being unpatentable over claims 1-66 of copending Application No. 10/670,771. These are *provisional* rejections because the alleged conflicting claims have not been patented.

In view of the claim amendments and remarks presented herein, Applicants respectfully submit that the present application is in condition for allowance. As the allegedly conflicting applications are still in prosecution, Applicants respectfully ask the Examiner to withdraw these provisional rejections.

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The Rejections Under 35 U.S.C. § 102(b), as Found in Sections 9-14, 17-19, and 21-23 of the Office Action, Should Be Withdrawn

Claims 1, 2, 4-7, 19, and 41 have been rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Miyazaki *et al.* (U.S. Patent No. 5,411,956). The Examiner has noted in Section 28 of the Office action that pentapeptides of the structures recited in claim 1 covalently attached to at least one of bFGF, GCSF, an ILGF-1, or VEGF are novel and non-obvious. Applicants have amended claim 1 to recite pentameric peptides covalently linked to a growth factor including at least one of bFGF, GCSF, an ILGF-1, or VEGF. Claims 2, 4-7, and 19 depend from claim 1. Claim 41 has been canceled. In light of the amendment to claim 1, and the cancellation of claim 41, this rejection is rendered moot. Applicants respectfully ask that this rejection be withdrawn.

Claims 1, 2, 5-9, 13, 19-21, and 33 have been rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Ramachandran *et al.* (*J. Org. Chem.* 28:173-77, 1962). As discussed herein, the Examiner has noted in Section 28 of the Office action that pentapeptides of the structures recited in claim 1 covalently attached to at least one of bFGF, GCSF, an ILGF-1, or VEGF are novel and non-obvious. Additionally, the Examiner has noted in Section 28 that claims 8-18, 31, 33, 35, 44, and 48, limited to SEQ ID NO:34, are novel and non-obvious. Applicants have amended claim 1 to recite pentameric peptides covalently linked to a growth factor including at least one of bFGF, GCSF, an ILGF-1, or VEGF. Claims 8 and 33 have been amended to recite SEQ ID NO:34. Claims 2, 5-7, and 19 depend from claim 1. Claims 9 and 13 depend from claim 8. Claims 20 and 21 have been canceled. In light of the amendments to claims 1, 8, and 33, and the cancellation of claims 20 and 21, this rejection is rendered moot. Applicants respectfully ask that this rejection be withdrawn.

Claims 30 and 32 have been rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Yaron *et al.* (*Biopolymers* 11:607-21, 1972). Claims 30 and 32 have been canceled, rendering this rejection moot. Applicants respectfully ask that this rejection be withdrawn.

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Claims 30-32 have been rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Grahl-Nielsen *et al.* (*Biochemistry* 8:187-92, 1969). As discussed herein, the Examiner has noted in Section 28 of the Office action that claims 8-18, 31, 33, 35, 44, and 48, limited to SEQ ID NO:34, are novel and non-obvious. Claim 31 has been amended to recite SEQ ID NO:34, and claims 30 and 32 have been canceled. In light of the amendment to claim 31, and the cancellation of claims 30 and 32, this rejection is rendered moot. Applicants respectfully ask that this rejection be withdrawn.

Claims 1, 2, 5-7, 19, and 33 have been rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Zahn *et al.* (*Ann. Chem.* 636:117-31, 1960). As discussed herein, the Examiner has noted in Section 28 of the Office action that pentapeptides of the structures recited in claim 1 covalently attached to at least one of bFGF, GCSF, an ILGF-1, or VEGF are novel and non-obvious. Additionally, as also discussed herein, the Examiner has noted in Section 28 that claims 8-18, 31, 33, 35, 44, and 48, limited to SEQ ID NO:34, are novel and non-obvious. Applicants have amended claim 1 to recite pentameric peptides covalently linked to a growth factor including at least one of bFGF, GCSF, an ILGF-1, or VEGF. Claim 33 has been amended to recite SEQ ID NO:34. Claims 2, 5-7, and 19 depend from claim 1. In light of the amendments to claims 1 and 33, this rejection is rendered moot. Applicants respectfully ask that this rejection be withdrawn.

Claims 30, 32, 44, 48-50, and 52 have been rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Payne *et al.* (*Biochemical Journal* 123:255-60, 1971). As discussed herein, the Examiner has noted in Section 28 of the Office action that claims 8-18, 31, 33, 35, 44, and 48, limited to SEQ ID NO:34, are novel and non-obvious. Claims 44 and 48 have been amended to recite SEQ ID NO:34, and claims 30, 32, 49, 50, and 52 have been canceled. In light of the amendment to claims 44 and 48, and the cancellation of claims 30, 32, 49, 50, and 52, this rejection is rendered moot. Applicants respectfully ask that this rejection be withdrawn.

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Claims 1, 2, 5-7, 10-12, and 19 have been rejected under 35 U.S.C. §102(b) as allegedly being anticipated by published PCT Application No. WO99/51254. As discussed herein, the Examiner has noted in Section 28 of the Office action that pentapeptides of the structures recited in claim 1 covalently attached to at least one of bFGF, GCSF, an ILGF-1, or VEGF are novel and non-obvious. Additionally, as also discussed herein, the Examiner has noted in Section 28 that claims 8-18, 31, 33, 35, 44, and 48, limited to SEQ ID NO:34, are novel and non-obvious. Applicants have amended claim 1 to recite pentameric peptides covalently linked to a growth factor including at least one of bFGF, GCSF, an ILGF-1, or VEGF. Claim 8 has been amended to recite SEQ ID NO:34. Claims 2, 5-7, and 19 depend from claim 1. Claims 10-12 depend from claim 8. In light of the amendments to claim 1 and claim 8, this rejection is rendered moot. Applicants respectfully ask that this rejection be withdrawn.

Claims 1, 2, 5-7, 10-12, and 19-21 have been rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Green *et al.* (U.S. Patent No. 6,100,380). As discussed herein, the Examiner has noted in Section 28 of the Office action that pentapeptides of the structures recited in claim 1 covalently attached to at least one of bFGF, GCSF, an ILGF-1, or VEGF are novel and non-obvious. Additionally, as also discussed herein, the Examiner has noted in Section 28 that claims 8-18, 31, 33, 35, 44, and 48, limited to SEQ ID NO:34, are novel and non-obvious. Applicants have amended claim 1 to recite pentameric peptides covalently linked to a growth factor including at least one of bFGF, GCSF, an ILGF-1, or VEGF. Claim 8 has been amended to recite SEQ ID NO:34. Claims 2, 5-7, and 19 depend from claim 1. Claims 10-12 depend from claim 8. Claims 20 and 21 have been canceled. In light of the amendments to claim 1 and claim 8, and the cancellation of claims 20 and 21, this rejection is rendered moot. Applicants respectfully ask that this rejection be withdrawn.

Claims 1, 2, 5-7, 10-12, and 19 have been rejected under 35 U.S.C. §102(b) as allegedly being anticipated by published PCT Application No. WO00/15188. As discussed herein, the Examiner has noted in Section 28 of the Office action that pentapeptides of the structures recited in claim 1 covalently attached to at least one of bFGF, GCSF, an ILGF-1, or VEGF are novel

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and non-obvious. Additionally, as also discussed herein, the Examiner has noted in Section 28 that claims 8-18, 31, 33, 35, 44, and 48, limited to SEQ ID NO:34, are novel and non-obvious. Applicants have amended claim 1 to recite pentameric peptides covalently linked to a growth factor including at least one of bFGF, GCSF, an ILGF-1, or VEGF. Claim 8 has been amended to recite SEQ ID NO:34. Claims 2, 5-7, and 19 depend from claim 1. Claims 10-12 depend from claim 8. In light of the amendments to claim 1 and claim 8, this rejection is rendered moot. Applicants respectfully ask that this rejection be withdrawn.

Claims 1, 2, 5-7, and 19 have been rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Katayama *et al.* (*J. Biol. Chem.* 268:9941-44, 1993). As discussed herein, the Examiner has noted in Section 28 of the Office action that pentapeptides of the structures recited in claim 1 covalently attached to at least one of bFGF, GCSF, an ILGF-1, or VEGF are novel and non-obvious. Applicants have amended claim 1 to recite pentameric peptides covalently linked to a growth factor including at least one of bFGF, GCSF, an ILGF-1, or VEGF. Claims 2, 5-7, and 19 depend from claim 1. In light of the amendment to claim 1, this rejection is rendered moot. Applicants respectfully ask that this rejection be withdrawn.

Claims 1, 2, 5-7, 10-12, and 19 have been rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Rastogi *et al.* (*FEBS Lett.* 317:93-5, 1992). As discussed herein, the Examiner has noted in Section 28 of the Office action that pentapeptides of the structures recited in claim 1 covalently attached to at least one of bFGF, GCSF, an ILGF-1, or VEGF are novel and non-obvious. Additionally, as also discussed herein, the Examiner has noted in Section 28 that claims 8-18, 31, 33, 35, 44, and 48, limited to SEQ ID NO:34, are novel and non-obvious. Applicants have amended claim 1 to recite pentameric peptides covalently linked to a growth factor including at least one of bFGF, GCSF, an ILGF-1, or VEGF. Claim 8 has been amended to recite SEQ ID NO:34. Claims 2, 5-7, and 19 depend from claim 1. Claims 10-12 depend from claim 8. In light of the amendments to claim 1 and claim 8, this rejection is rendered moot. Applicants respectfully ask that this rejection be withdrawn.

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Claims 30, 32, 41, 44, 48-50, and 52 have been rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Grahl-Nielsen *et al.* (*In Vitro* 9:414-20, 1974). As discussed herein, the Examiner has noted in Section 28 of the Office action that claims 8-18, 31, 33, 35, 44, and 48, limited to SEQ ID NO:34, are novel and non-obvious. Claims 44 and 48 have been amended to recite SEQ ID NO:34, and claims 30, 32, 41, 49, 50, and 52 have been canceled. In light of the amendment to claims 44 and 48, and the cancellation of claims 30, 32, 41, 49, 50, and 52, this rejection is rendered moot. Applicants respectfully ask that this rejection be withdrawn.

The Rejections Under 35 U.S.C. § 102(e), as Found in Sections 8, 15, 16, 20, and 25 of the Office Action, Should Be Withdrawn

Claims 1, 2, 5-7, 10-12, and 19 have been rejected under 35 U.S.C. §102(e) as allegedly being anticipated by U.S. Patent No. 6,759,510. As discussed herein, the Examiner has noted in Section 28 of the Office action that pentapeptides of the structures recited in claim 1 covalently attached to at least one of bFGF, GCSF, an ILGF-1, or VEGF are novel and non-obvious. Additionally, as also discussed herein, the Examiner has noted in Section 28 that claims 8-18, 31, 33, 35, 44, and 48, limited to SEQ ID NO:34, are novel and non-obvious. Applicants have amended claim 1 to recite pentameric peptides covalently linked to a growth factor including at least one of bFGF, GCSF, an ILGF-1, or VEGF. Claim 8 has been amended to recite SEQ ID NO:34. Claims 2, 5-7, and 19 depend from claim 1. Claims 10-12 depend from claim 8. In light of the amendments to claim 1 and claim 8, this rejection is rendered moot. Applicants respectfully ask that this rejection be withdrawn.

Claims 1, 2, 4-7, 19, 30, 32, and 41 have been rejected under 35 U.S.C. §102(e) as allegedly being anticipated by Calenoff *et al.* (Published U.S. Patent Application No. 2005/0048588). As discussed herein, the Examiner has noted in Section 28 of the Office action that pentapeptides of the structures recited in claim 1 covalently attached to at least one of bFGF, GCSF, an ILGF-1, or VEGF are novel and non-obvious. Applicants have amended claim 1 to recite pentameric peptides covalently linked to a growth factor including at least one of bFGF,

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GCSF, an ILGF-1, or VEGF. Claims 2, 4-7, and 19 depend from claim 1, and claims 30, 32 and 41 have been canceled. In light of the amendment to claim 1, and the cancellation of claims 30, 32 and 41, this rejection is rendered moot. Applicants respectfully ask that this rejection be withdrawn.

Claims 1, 2, 5-7, 20, and 21 have been rejected under 35 U.S.C. §102(e) as allegedly being anticipated by Katinger *et al.* (Published U.S. Patent Application No. 2004/0072341). As discussed herein, the Examiner has noted in Section 28 of the Office action that pentapeptides of the structures recited in claim 1 covalently attached to at least one of bFGF, GCSF, an ILGF-1, or VEGF are novel and non-obvious. Applicants have amended claim 1 to recite pentameric peptides covalently linked to a growth factor including at least one of bFGF, GCSF, an ILGF-1, or VEGF. Claims 2 and 5-7 depend from claim 1, and claims 20 and 21 have been canceled. In light of the amendment to claim 1, and the cancellation of claims 20 and 21, this rejection is rendered moot. Applicants respectfully ask that this rejection be withdrawn.

Claims 1, 2, 4-9, 13-16, 19, 30-33, 35, and 41 have been rejected under 35 U.S.C. §102(e) as allegedly being anticipated by Dean *et al.* (Published U.S. Patent Application No. 2003/0175745). As discussed herein, the Examiner has noted in Section 28 of the Office action that pentapeptides of the structures recited in claim 1 covalently attached to at least one of bFGF, GCSF, an ILGF-1, or VEGF are novel and non-obvious. Additionally, as also discussed herein, the Examiner has noted in Section 28 that claims 8-18, 31, 33, 35, 44, and 48, limited to SEQ ID NO:34, are novel and non-obvious. Applicants have amended claim 1 to recite pentameric peptides covalently linked to a growth factor including at least one of bFGF, GCSF, an ILGF-1, or VEGF. Claims 8, 31 and 33 have been amended to recite SEQ ID NO:34. Claims 2, 4-7 and 19 depend from claim 1. Claims 9 and 13-16 depend from claim 8. Claim 35 depends from claim 33. Claims 30, 32, and 41 have been canceled. In light of the amendments to claims 1, 8, 31, and 33, and the cancellation of claims 30, 32, and 41, this rejection is rendered moot. Applicants respectfully ask that this rejection be withdrawn.



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Claims 1, 2, 5-13, 19-21, 33, 36, and 37 have been rejected under 35 U.S.C. §102(e) as allegedly being anticipated by Uhrich *et al.* (Published U.S. Patent Application No. 2003/0104614). As discussed herein, the Examiner has noted in Section 28 of the Office action that pentapeptides of the structures recited in claim 1 covalently attached to at least one of bFGF, GCSF, an ILGF-1, or VEGF are novel and non-obvious. Additionally, as also discussed herein, the Examiner has noted in Section 28 that claims 8-18, 31, 33, 35, 44, and 48, limited to SEQ ID NO:34, are novel and non-obvious. Applicants have amended claim 1 to recite pentameric peptides covalently linked to a growth factor including at least one of bFGF, GCSF, an ILGF-1, or VEGF. Claims 8 and 33 have been amended to recite SEQ ID NO:34. Claims 2, 5-7, and 19 depend from claim 1. Claims 9-13 depend from claim 8. Claims 20, 21, 36, and 37 have been canceled. In light of the amendments to claims 1, 8, and 33, and the cancellation of claims 20, 21, 36, and 37, this rejection is rendered moot. Applicants respectfully ask that this rejection be withdrawn.

The Rejections Under 35 U.S.C. § 103(a), as Found in Sections 24 and 26 of the Office Action, Should Be Withdrawn

Claim 51 has been rejected under 35 U.S.C. §103(a) as allegedly being obvious over Grahl-Nielsen *et al.* (*In Vitro* 9:414-20, 1974). Claim 51 has been canceled, rendering this rejection moot. Applicants respectfully ask that this rejection be withdrawn.

Claims 1, 2, 5-7, 10-13, 16, 17, 19-21, 33, 36, and 37 have been rejected under 35 U.S.C. §103(a) as allegedly being obvious over Bryhan *et al.* (U.S. Patent No. 5,563,215) in view of Hubbell *et al.* (U.S. Patent No. 5,330,911) or Zamora (U.S. Patent No. 5,738,838). As discussed herein, the Examiner has noted in Section 28 of the Office action that pentapeptides of the structures recited in claim 1 covalently attached to at least one of bFGF, GCSF, an ILGF-1, or VEGF are novel and non-obvious. Additionally, as also discussed herein, the Examiner has noted in Section 28 that claims 8-18, 31, 33, 35, 44, and 48, limited to SEQ ID NO:34, are novel and non-obvious. Applicants have amended claim 1 to recite pentameric peptides covalently linked to a growth factor including at least one of bFGF, GCSF, an ILGF-1, or VEGF. Claims 8

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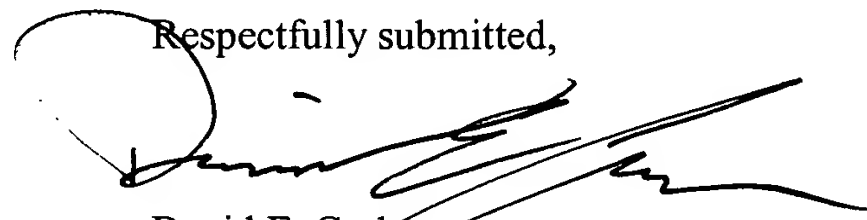
and 33 have been amended to recite SEQ ID NO:34. Claims 2, 5-7, and 19 depend from claim 1. Claims 10-13, 16, and 17 depend from claim 8. Claims 20, 21, 36, and 37 have been canceled. In light of the amendments to claims 1, 8, and 33, and the cancellation of claims 20, 21, 36, and 37, this rejection is rendered moot. Applicants respectfully ask that this rejection be withdrawn.

### CONCLUSIONS

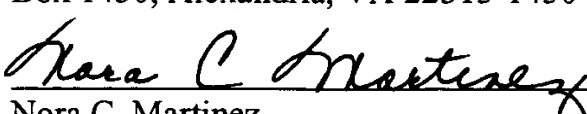
It is believed that the rejections have been obviated or overcome and the claims are in condition for allowance. Early notice to this effect is solicited. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,



David E. Cash  
Registration No. 52,706

<b>Customer No. 47656</b> <b>ALSTON &amp; BIRD LLP</b> Bank of America Plaza 101 South Tryon Street, Suite 4000 Charlotte, NC 28280-4000 Tel Raleigh Office (919) 862-2200 Fax Raleigh Office (919) 862-2260	<b><u>CERTIFICATE OF EXPRESS MAILING</u></b> "Express Mail" mailing label number EV395777440US Date of Deposit September 12, 2005 I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450  Nora C. Martinez
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